



XTREAM
PROTECTOR



SPECIALIST

XTREAMPROTECTOR

STORMWATER TREATMENT

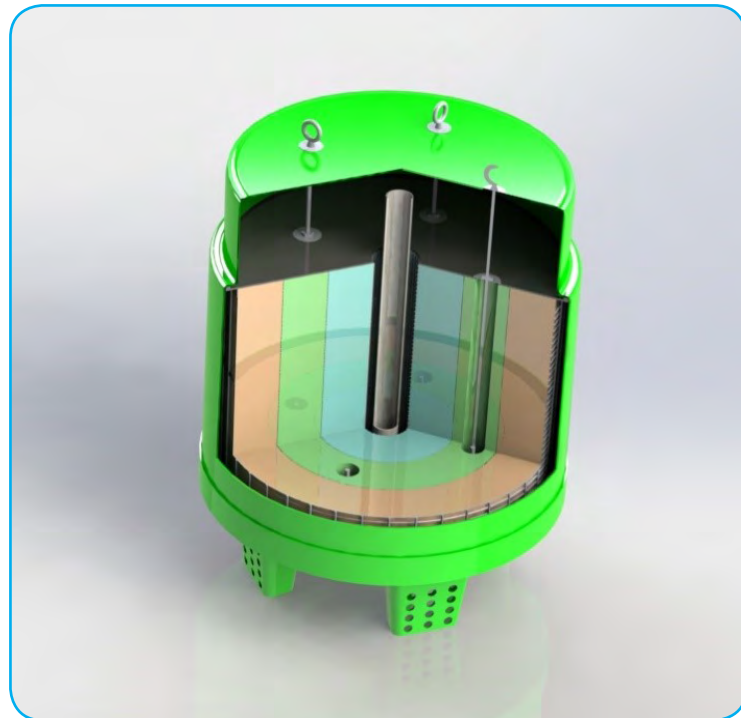
www.protector.com.au

XTREAM PROTECTOR

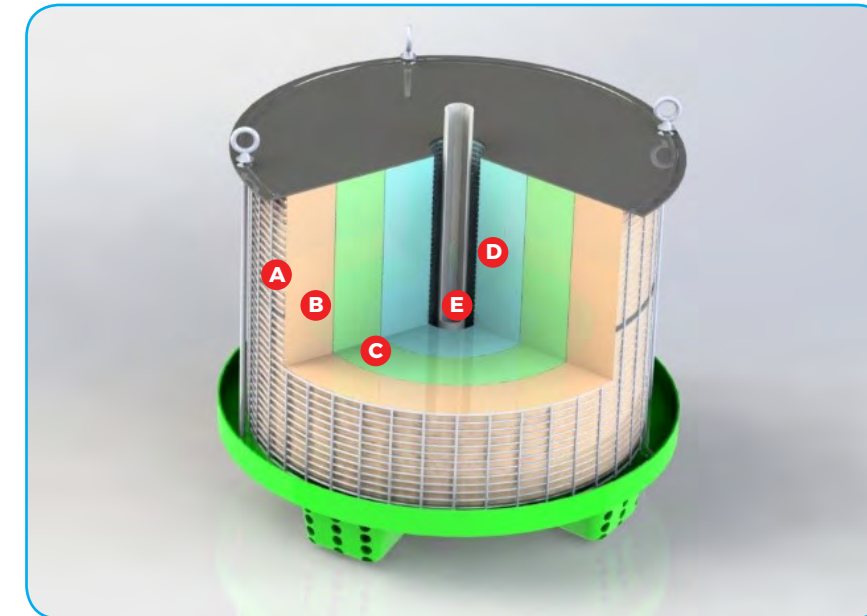
The XTREAMFILTER is designed to filter stormwater run off and remove a large proportion of the contaminants in the process. This filtration device to be implemented into stormwater systems to remove fine sediments, heavy metals and phosphorus from stormwater runoff. The system consists of a base with several legs stands, each designed with water inlets holes to ensure high even flow of water into the water filter, a removable top shell with retention chamber, a one way air valve to create a vacuum for continuous flow and the filter cylinder itself. The water is able to evenly flow up the outer channels and flow evenly through the filter media, consisting of three different media that is designed to target and remove specific contaminants. This system is able to effectively remove large portions of sediment, gross pollutants, hydrocarbons and oils, heavy metals, nutrients and organic substances and phosphorus. This system combines to create an exceptional all round filtration system suitable for almost any site demand.

The filter is also able to come in any number of filters, in any number of arrangements to suit your site needs and provide the perfect filtration system for your need. Maintenance and installation is also simple as the system comes pre-assembled in our long life, high strength FRP horizontal encasings to provide quick and easy installation. Our filters are also easily deconstructed and the filter media is easily cleaned and maintained.

The system is a series of our well designed and vigorously tested XTREAMFilters, as system which is designed to maximise water surface area contact to have the highest flow rate of clean and environmentally safe water.



HOW IT WORKS



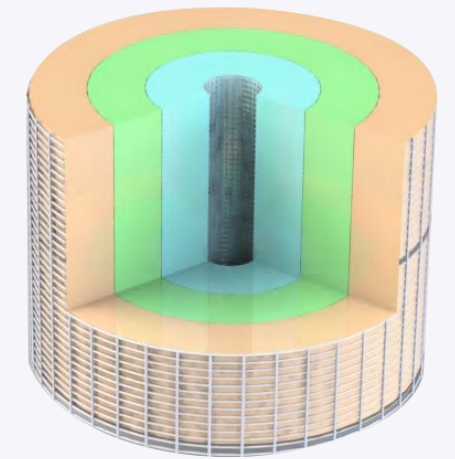
- A. Exterior Fine mesh Layer
- B. Filter Layer 1 – Zeolite
- C. Filter Media 2. – Activated Carbon
- D. Filter Media 3 – phosphorus removal
- E. Interior dropper Piping

The XTREAMFILTER is one of protectors most efficient and complete tertiary treatment filters, removing high percentages of sedimentation, gross pollutants, hydrocarbons and oils, heavy metals, nutrients and organic substances and phosphorus. The process of this filter is simple, but extremely effective:

Firstly the water enters through the flame dip tube from the stormwater drain or previous stormwater treatment stage and into the XTREAMFILTER housing, either an FRP tank, or concrete encasing.

A silt baffle is installed prior to the filters location, as well as the filters being positioned on a raised floor to prevent sediments from entering the filters. Once the water level is high enough the water enters through the inlet legs, rising evenly through the base. As the water level rises the outer riser channels fill covering the surface of the filter media. The stormwater then passes through a 2mm wire mesh, removing all contaminants larger than this mesh will allow. The water then flows through the three circular cylinder layers of filtration media, as shown by the orange, green and blue in the image below with each layer performing filtration of desired contaminants. Each media is separated by a 1mm wire mesh, providing further interception and sediment removal. The water then flows into the inner riser tube and into the top retention tank, and out of the central dropper tube.

TECHNICAL DATA



Outer Surface area:

2,200,000 mm²

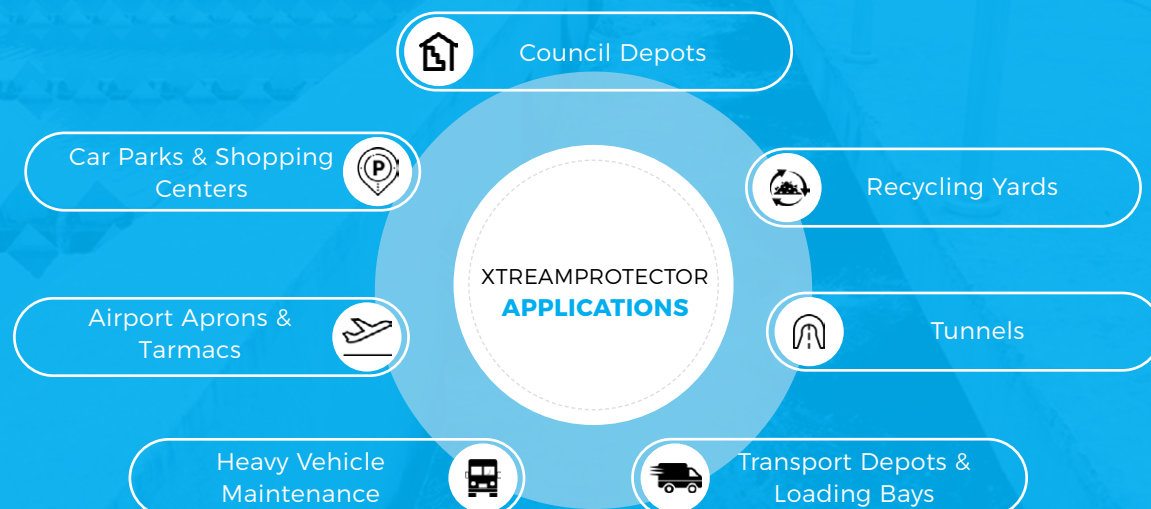
Filter Media:

Layer 1 – Zeolite
Layer 2 – Activated Carbon
Layer 3 – AusPerl Perlite

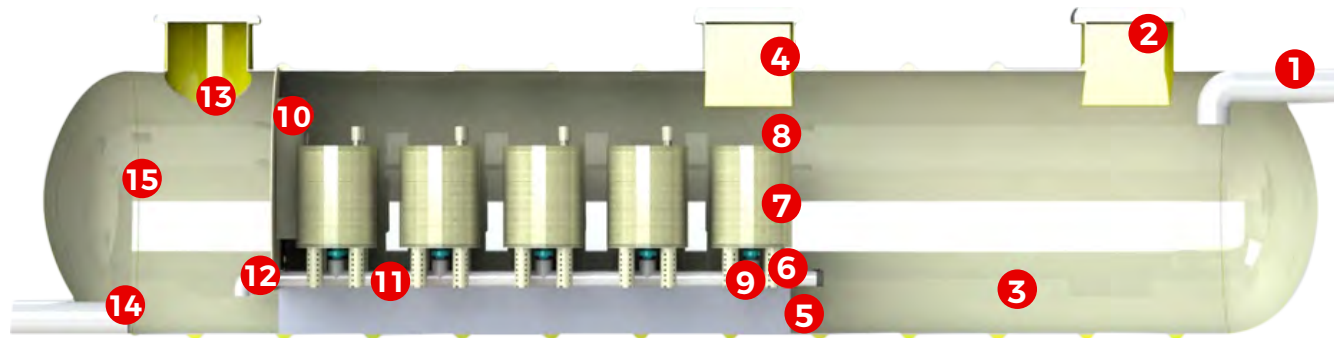
This system has flexible media choices, so it can be designed with alternate media to suit your site needs

Volume of filter Media per Layer:

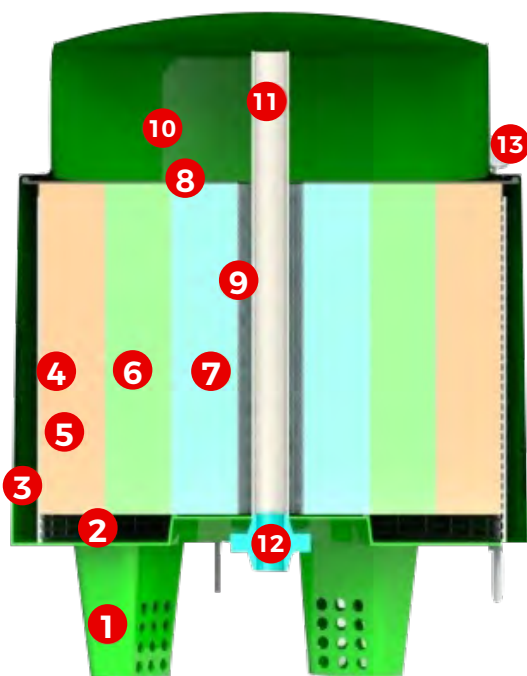
Layer 1 = 94.3L
Layer 2 = 62.8L
Layer 3 = 31.4L



PRODUCT STRUCTURE











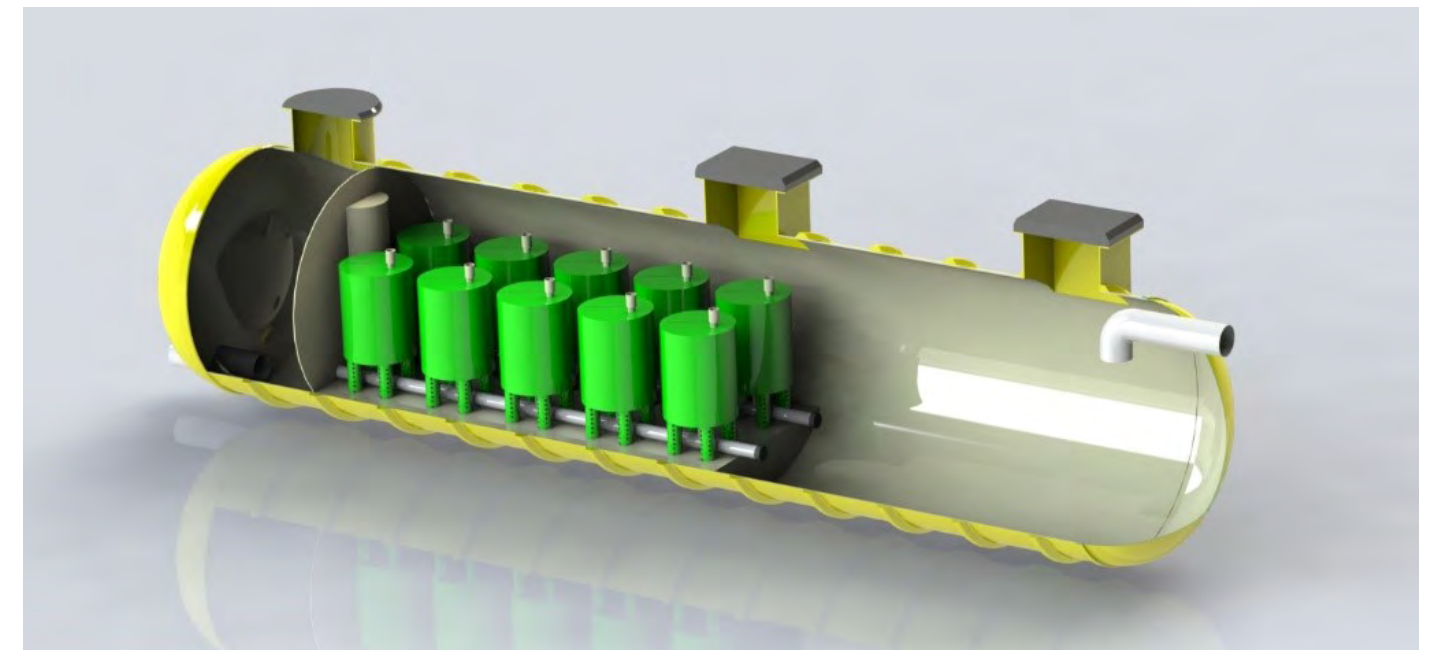
1. Inlet flame dip pipe
2. Sediment chamber access
3. Sediment chamber
4. Filter access and filter removal manway
5. Filter floor and silt baffle
6. XTREAMFILTER Inlet leg system
7. XTREAMFILTER
8. One way Air valve
9. XTREAMFILTER outlet
10. Bypass baffle
11. XTREAMFILTER pipe connections arrangement
12. XTREAMFILTER discharge vacuum elbows
13. Discharge camber access
14. Discharge outlet into waterways
15. Discharge chamber



1. Inlet legs
2. Lower water channel
3. Outer riser channel
4. 2mm exterior wire mesh
5. Filter media 1 - Zeolite
6. Filter media 2 - Activated Carbon with 1mm wire mesh
7. Filter Media 3 - Ausperl Perlite with 1 mm wire
8. Steel Disk Plates
9. Inner riser channel with 1.6mm wire mesh
10. Retention chamber
11. Dropper Outlet Tube
12. Outlet Point into Piping arrangement
13. I hooks to hold filter FRP shell

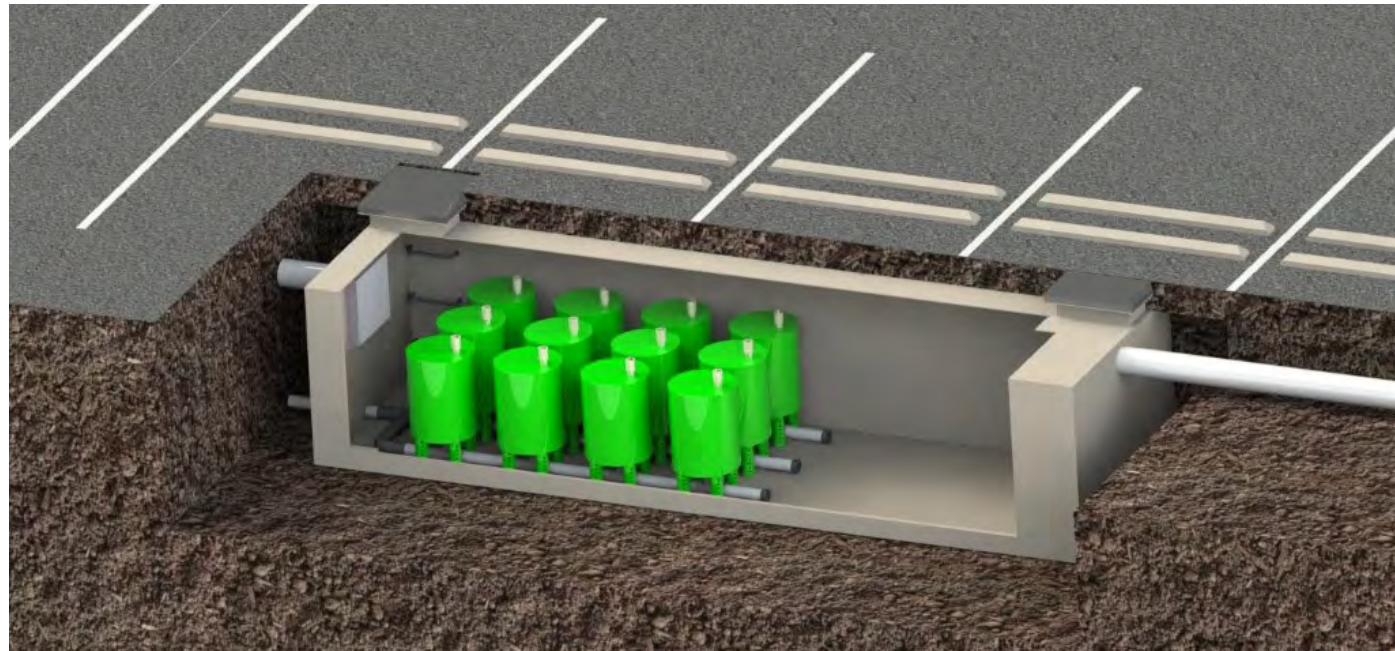
FEATURES OF XTREAMPROTECTOR

 Adsorption	 Sedimentation	 Triple Layered Filtration	 Interception and Attachment
 Passive Hydraulic Operation	 High filter surface area	 Bypass System for high Flow Conditions	 One-Way Air Release Valve



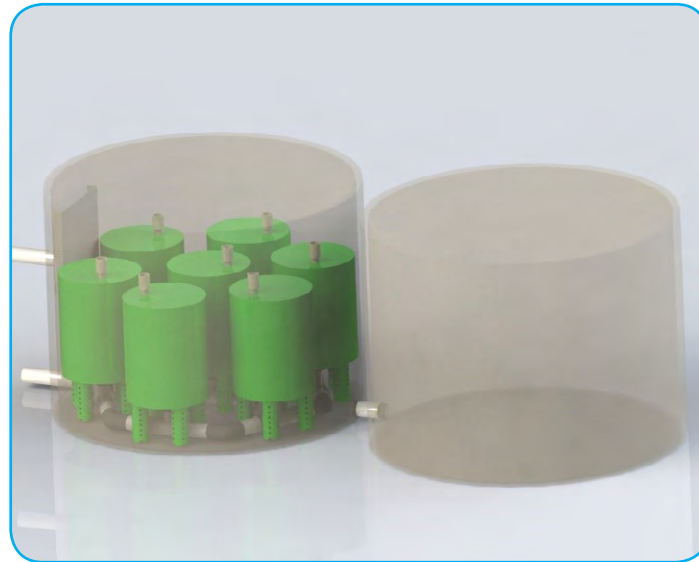
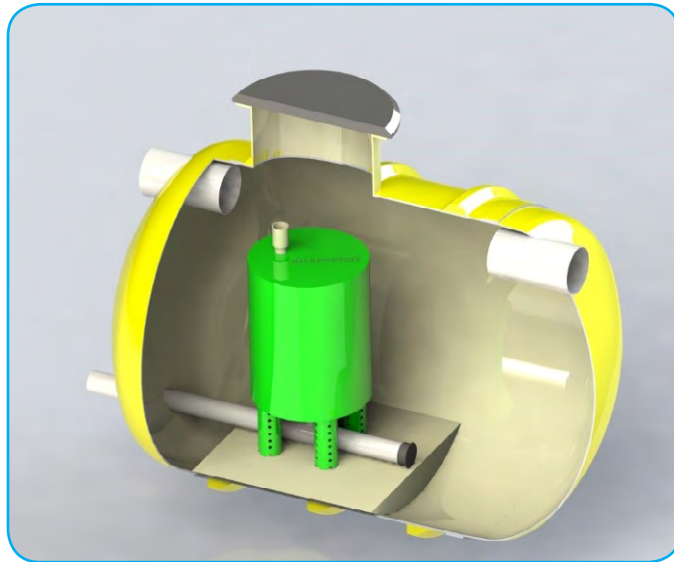
FLEXIBILITY IN DESIGN!

- Due to our systems high flow rate and UP-flow design, this system can be utilised to treat a large range of flow capacity requirements and filtration requirements.
- Our system is also easily configured into any format required for the demands of your site! The use of concrete vaulted housing, FRP tank Installation or single use installations, the XTREAMFILTER is suitable for any site!



INSTALLATION

Installation instructions of the FRP tank configurations follow the basic instructions of any FRP horizontal tank which can be found on our website or received after contact with a member of our team. The entire system comes pre-assembled, only the ground installation into the site needs to be completed!



OTHER PRODUCTS

EcoProtector



Hydrodynamic, fill capture, high capacity gross pollutant Trap

StormProtector



Dual chamber, fine particle, sedimentation and organic pollutant removal treatment with large retention and Bypass.

HYDRAPROTECTOR

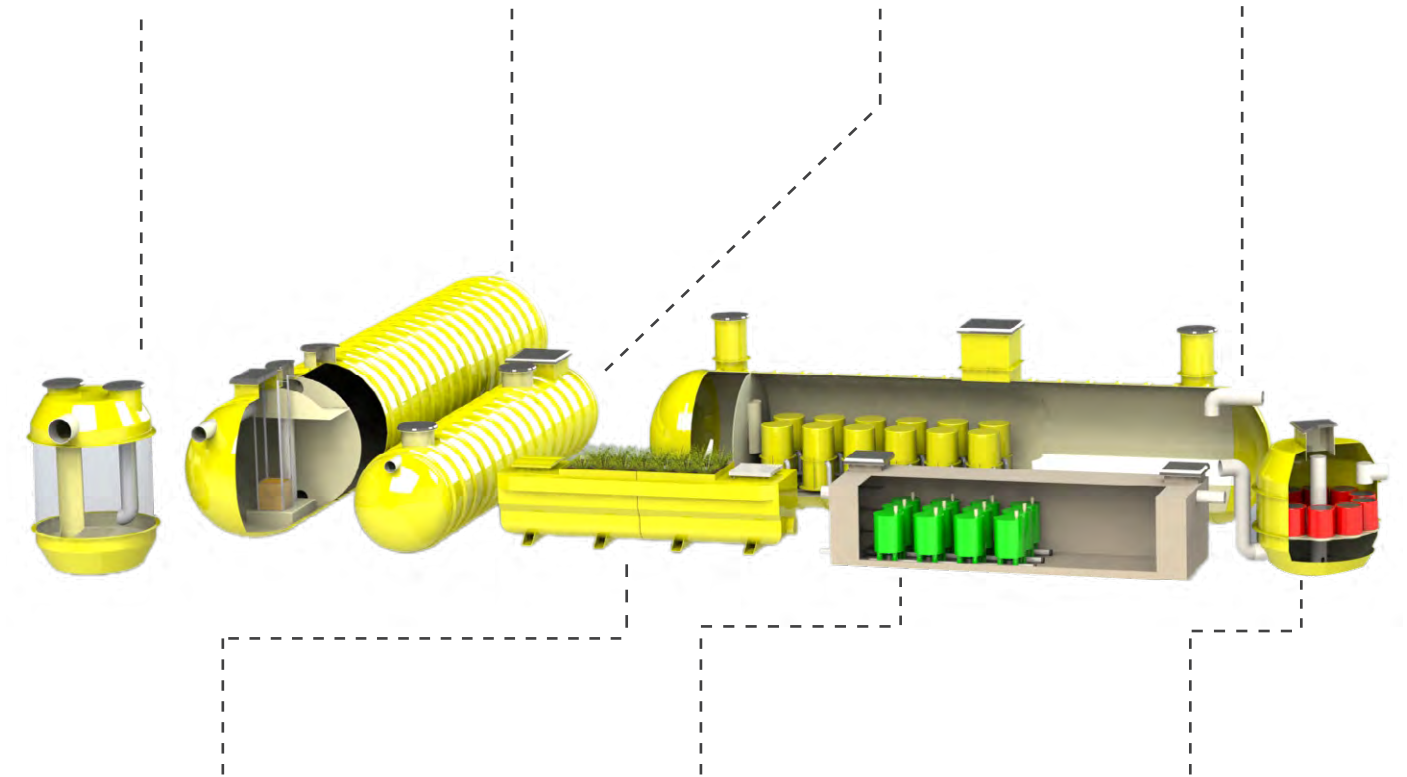


Highly efficient, full retention separator to treat first flush, fine particulates, nutrients, heavy metals and hydrocarbon filtration system.

MaxiProtector



Dual chamber, fine particle, sedimentation and organic pollutant removal treatment with large retention and Bypass.



BIOPROTECTOR



Hydrodynamic, fill capture, high capacity gross pollutant Trap

XTREAMPROTECTOR



Upflow filtration process designed to remove fine sediments, nutrients, heavy metals, phosphorus and hydrocarbons using our exclusive filter stack design.











EnviroProtector



Specialist stormwater filter for heavily polluted areas able to removing heavy metals, TSS, nutrients, hydrocarbons, designed to your requirements.



PROTECTOR

Treatment Stages	Product Requirement		Our Products
 1. Primary Treatment Remove gross pollutants	First flush with oil capture	Gross Pollutant Trap	
 2. Secondary Treatment Remove fine particles, sedimentation & attached pollutants	95% Hydrocarbon capture	Class 1 By-pass Separators	
		Class 1 Full Retention Separators	
 3. Tertiary Treatment Removes very fine/colloidal nutrients & heavy metals	Nutrient reduction and full sediment	90% TSS, 54% TP and 36% TN	
		Heavy Metal, TSS and Nutrient reduction	
		Heavy Metal, TSS and Nutrient	
		TSS, Sediments, nutrients, phosphorus and heavy metal removal	

KEEP IN TOUCH!



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Ropes Crossing, NSW, 2760



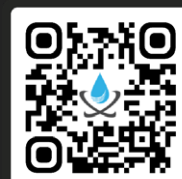
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